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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	<b>Application Number</b>	09/737,245
	<b>Filing Date</b>	12/13/2000
	<b>First Named Inventor</b>	Steven Teig, et al.
	<b>Group Art Unit</b>	2825
	<b>Examiner Name</b>	Do, Thuan V.
<b>Total Number of Pages in This Submission</b>	<b>Attorney Docket Number</b>	SPLX.P0012

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<b>Firm Or Individual name</b>	Ali Makoui, Reg. No. 45,536 of Stattler Johansen & Adeli LLP
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<b>Date</b>	October 03, 2005

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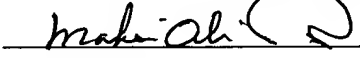
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PATENT  
Docket No. SPLX.P0012

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Ali Makoui

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Steven Teig

Serial No.: 09/737,245

Filing Date: 12/13/2000

For: METHOD AND APPARATUS FOR  
USING CONNECTION GRAPHS WITH  
POTENTIAL DIAGONAL EDGES TO MODEL  
INTERCONNECT TOPOLOGIES DURING  
PLACEMENT

Examiner: Do, Thuan V

Group Art Unit: 2825

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97**

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Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, applicants submit with this Information Disclosure Statement the attached Form PTO-1449, and copies of the documents listed in the 1449 form for consideration by the Examiner. The Examiner is requested to make these documents of record. Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

This Information Disclosure Statement is submitted after receipt of a First Office Action on the merits but before receipt of a Final Office Action or Notice of Allowance. Therefore, a fee of \$180 is required for the submission of this Information Disclosure Statement. However, Applicant concurrently filed an Electronic Information Disclosure Statement on 10/03/2005 and has paid for the \$180 fee (a copy is herein attached). Thus, Applicant has not enclosed the \$180 fee because Applicant respectfully believes that no additional fees are required.

This Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

If the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 50-1128** referencing **SPLX.P0012**. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: October 03, 2005

Respectfully submitted,

By: 

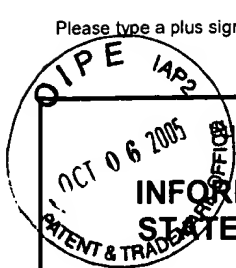
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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Application Number	09/737,245
				Filing Date	12/13/00
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	Thuan V. Do
Sheet	1	of	5	Attorney Docket Number	SPLX.P0012

FOREIGN PATENT DOCUMENTS								
Examiner* Initials	Cite No. <sup>1</sup>	Foreign Patent Document			Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code (if known) <sup>5</sup>				
	1.	JP	411296560	A	10-29-1999	Matsumoto et al.	with English translation of Abstract;	
	2.	JP	2000-82743	A	03-21-2000	Igarashi et al.	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	3.	JP	H03-173471	A	07-26-1991	Tawada et al.	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	4.	JP	H05-243379	A	09-21-1993	Masako Kubota	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	5.	JP	H05-102305	A	04-23-1993	Akihiro Sato	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	6.	JP	H07-086407	A	03-31-1995	Shinpei Miura	with Japanese Patent Office's English translation of Abstract; and with English translation of the	✓

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				Group Art Unit	2825
				Examiner Name	Thuan V. Do
Sheet	2	of	5	Attorney Docket Number	SPLX.P0012

FOREIGN PATENT DOCUMENTS								
							application.	
	7.	JP	H09-162279	A	06-20-1997	Masaaki Yoshida	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	8.	JP	02-262354		10-25-1990	Kuribayashi, Mototaka		

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				<b>Examiner Name</b>	Thuan V. Do
<b>Sheet</b>	3	of	5	<b>Attorney Docket Number</b>	SPLX.P0012

NON PATENT LITERATURE DOCUMENTS			
Examiner* Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	9.	Ahuja, R. et al., Faster Algorithms for the Shortest Path Problem, Journal of the Association for Computing Machinery, vol. 37, No. 2, April 1990, pp. 213-223.	
	10.	Brady, L. et al., Channel Routing on a 60° Grid, extended abstract, pp. 956-931.	
	11.	Brambilla, A. et al., Statistical Method for the Analysis of Interconnects Delay in Submicrometer Layouts, IEEE, 8/2001, pp. 957-966.	
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	17.	Cong, J. et al., Efficient Heuristics for the Minimum Shortest Path Steiner Arborescence Problem with Applications to VLSI Physical Design, Cadence Design Systems and UCLA Computer Science Department, pp.88-95.	
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	21.	Hom, I. et al., Estimation of the Number of Routing Layers and Total Wirelength in a PCB Through Wiring Distribution Analysis, 1996, pp. 1-6.	

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				Filing Date	12/13/00
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	Thuan V. Do
Sheet	4	of	5	Attorney Docket Number	SPLX.P0012

NON PATENT LITERATURE DOCUMENTS		
22.	Hong, X. et al., Performance-Driven Steiner Tree Algorithms for Global Routing, 30 <sup>th</sup> ACM/IEEE Design Automation Conference, 1993, pp. 177-181.	
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33.	Partitioning Logic on to Graph Structure, IBM Technical Disclosure Bulletin, February 1990, vol. 32, iss. 9A, pp. 469-475.	
34.	Phillips, N., Channel Routing by Constraint Logic, Department of Computer Science Southern Illinois University, ACM, 1992.	

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NON PATENT LITERATURE DOCUMENTS		
35.	Takashima, Y. et al, Routability of FPGAs with Extremal Switch-Block Structures, IEICE Trans. Fundamentals, vol. E81-A, No. 5, May 1998, pp. 850-856.	
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43.	Zhou, H. et al., An Optimal Algorithm for River Routing with Crosstalk Constraints, 1996.	
44.	Zhou, H. et al., Global Routing with Crosstalk Constraints, Department of Computer Sciences, University of Texas, 1998, pp. 374-377.	
45.	Zhou, H. et al., Optimal River Routing with Crosstalk Constraints, ACM Transactions on Design Automation of Electronic Systems, vol. 3, No. 3, July 1998, pp. 496-514.	
46.	Cong J. et al., DUNE – Amultilayer Gridless Routing System, May 2001, IEEE Transactions on Computer Aided Design of Integrated Circuits and Systems, vol 20, iss. 5, pp.633-647	

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This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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ACKNOWLEDGEMENT RECEIPT**

Electronic Version 1.1

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Title of Invention	Method and Apparatus for Using Connection Graphs with Potential Diagonal Edges to Model Interconnect Topologies During Placement																								
Submission Type:	Information Disclosure Statement																								
Application Number:	09/737245 *09/737245*																								
EFS ID:	93920																								
Server Response:	<table border="1"><thead><tr><th>Confirmation Code</th><th>Message</th></tr></thead><tbody><tr><td>ISVR1</td><td>Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application</td></tr><tr><td>ICON1</td><td>8353</td></tr><tr><td>USPTOEFSNotice</td><td>For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a></td></tr></tbody></table>	Confirmation Code	Message	ISVR1	Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application	ICON1	8353	USPTOEFSNotice	For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: <a href="http://www.uspto.gov/ebc/">http://www.uspto.gov/ebc/</a>																
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First Named Applicant:	Steven Teig, et al.																								
Attorney Docket Number:	SPLX.P0012																								
Timestamp:	2005-10-04 01:50:35 EDT																								
From:	us																								
File Listing:	<table border="1"><thead><tr><th>Doc. Name</th><th>File Name</th><th>Size (Bytes)</th></tr></thead><tbody><tr><td>us-ids</td><td>SPLX.P0012-B-usidst.xml</td><td>3276</td></tr><tr><td>us-ids</td><td>us-ids.dtd</td><td>7763</td></tr><tr><td>us-ids</td><td>us-ids.xsl</td><td>12026</td></tr><tr><td>package-data</td><td>SPLX.P0012-B-pkda.xml</td><td>1909</td></tr><tr><td>package-data</td><td>package-data.dtd</td><td>27025</td></tr><tr><td>package-data</td><td>us-package-data.xsl</td><td>19263</td></tr><tr><td colspan="2">Total files size</td><td>71262</td></tr></tbody></table>	Doc. Name	File Name	Size (Bytes)	us-ids	SPLX.P0012-B-usidst.xml	3276	us-ids	us-ids.dtd	7763	us-ids	us-ids.xsl	12026	package-data	SPLX.P0012-B-pkda.xml	1909	package-data	package-data.dtd	27025	package-data	us-package-data.xsl	19263	Total files size		71262
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Total files size		71262																							
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ACKNOWLEDGEMENT RECEIPT**

Electronic Version 1.1

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**Title of  
Invention**

Method and Apparatus for Using Connection Graphs with Potential  
Diagonal Edges to Model Interconnect Topologies During Placement

Submission Type: Information Disclosure Statement

Application Number: 09/737245

\*09/737245\*

EFS ID: 93919

Server Response:

Confirmation Code	Message
ISVR1	Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application
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First Named Applicant: Steven Teig, et al.

Attorney Docket Number: SPLX.P0012

Timestamp: 2005-10-04 01:14:21 EDT

From: us

File Listing:

Doc. Name	File Name	Size (Bytes)
us-fee-sheet	SPLX.P0012-usfees.xml	1484
us-fee-sheet	us-fee-sheet.xml	25930
us-fee-sheet	us-fee-sheet.dtd	11968
us-ids	SPLX.P0012-usidst.xml	9493
us-ids	us-ids.dtd	7763
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package-data	SPLX.P0012-pkda.xml	2357
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package-data	us-package-data.xml	19263
Total files size		117309

Message Digest: 4891332bf7804c2a37251cba5a19c54fce310dea

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Attorneys,ou=Patent and Trademark  
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**FEE TRANSMITTAL**

Electronic Version v10  
Stylesheet Version v10

<b>Title of Invention</b>	Method and Apparatus for Using Connection Graphs with Potential Diagonal Edges to Model Interconnect Topologies During Placement		
Application Number: 09/737245 *09/737245*			
Date: 2000-12-13			
First Named Applicant: Steven Teig, et al.			
Attorney Docket Number: SPLX.P0012			
Art Unit: 2825			
Examiner: Thuan V Do			
<b>TOTAL FEE AUTHORIZED \$180</b>			
Patent fees are subject to annual revisions on or about October 1st of each year.			
<b>Fee Description</b>	<b>Fee Code</b>	<b>Amount \$</b>	<b>Fee Paid \$</b>
Submission Of Information Disclosure Stmt Fee	1806	180	180
<b>AUTHORIZED BILLING INFORMATION</b>			
The commissioner is hereby authorized to charge indicated fees and credit any overpayments to:			
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